IBM US Hardware Announcement

March 8, 1994

IBM Internal Use Only

IBM RISC System/6000 N40 Notebook Workstation

The RISC System/6000® N40 Notebook Workstation is the ideal portable companion for mobile professionals who want to take AIX® on the road. Based on the PowerPC™ architecture, the N40 notebook offers workstation performance in a lightweight, portable package.

Capable of running AIX Version 3.2.5 compatible applications, the RISC System/6000 notebook features a PowerPC 601™ single chip processor with a 32KB unified instruction and data cache, operating at 50MHz. It supports main memory sizes from 16MB to 64MB. It features a 9.4-inch TFT color active matrix display (640 x 480 with pan and zoom to 1280 x 1024), and has a removable disk drive with 340MB capacity. Its other features include a TrackPoint™ II pointing device, a high-speed modem, and support for either two Type I or Type II Personal Computer Memory Card International Association (PCMCIA) credit card sized adapters or one Type III PCMCIA adapter. Its external ports include Ethernet, SCSI-2, external display (supporting up to 1280 x 1024 and 256 colors), audio, parallel, Appletalk[1]-compliant printer port, serial, and support for an external keyboard and an external mouse. The RISC System/6000 N40 also features a built-in speaker and microphone.*

With the emergence of an infrastructure to support truly mobile communications, the N40 has been designed with leading-edge communications capability. Modem and Ethernet connections are standard. PCMCIA slots exist for a token-ring option and future expansion provides the capability for functions like wireless adapters, additional memory and PCMCIA disk drives.

The RISC System/6000 N40 weighs 6.9 pounds and operates from an internal battery pack with a battery life that exceeds 45 minutes. An external, rechargeable battery pack is available that extends the battery life up to four hours. AIX for N40 is included with the system.

Purchase Price: $11,995 (N40)

Planned Availability Date:

- March 25, 1994, for IBM RISC System/6000 N40, with all features and options except the External Battery Pack and External SCSI-2 Diskette Drive.
- April 29, 1994, for External Battery Pack, and External SCSI-2 Diskette Drive for the IBM RISC System/6000 N40.

Note: The IBM RISC System/6000 N40 External Battery Pack (#7091) and External SCSI-2 Diskette Drive (#7086) have not been approved by the Federal Communications Commission. These devices are not, and may not be, offered for sale or lease, or sold or leased until the approval of the FCC has been obtained.

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1 Trademark of Apple Computer Corporation
* A port is also provided for future ISDN enabling and ISDN software support.

IN BRIEF . . .

- Highest performance notebook computer on the market
- 50MHz PowerPC 601 processor, with 32KB unified instruction and data cache
- Preinstalled with AIX for N40 software
- Memory size from 16MB to 64MB
- A 9.4-inch color TFT active matrix display
- Standard disk drive easily removed for data security, portability and system sharing
- PCMCIA memory/peripheral expansion card technology
- Standard functions include ISDN enabled port, audio, Appletalk-compliant printer port, modem, serial, Ethernet, parallel and SCSI-2 ports

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Marketing Information

Marketing Channels

- IBM US — Direct
- IBM US — Industry Remarketers Mid-Range
- IBM US — Managing Industry Remarketers

Marketing Strategy

The RISC System/6000 N40 is designed to be the highest performance notebook computer on the market today. It was developed for the high-end "power users" who require compatibility with their other AIX Version 3.2.5 applications and need portability not available until now.

Authorized Application Specialist Program (AASP)

Fees: IBM RISC System/6000 family of systems is approved as an authorized product and will appear on the Product Supplement to the IBM Business Partner Agreement — Application Specialist (Z125-4074).

The fees and other payments associated with these products will be added to the Exhibit to the IBM Business Partner Agreement — Application Specialist (Z125-4084).

The Product Supplement and the Exhibit to the IBM Business Partner Agreement — Application Specialist will be available in the Legal Documents Category of the FAWN system and DAWNHOST in HONE.

The Complementary Marketing Assistance Program Agreement (118-9217) will appear on the Fee Schedule in the Exhibit to the Complementary Marketing Assistance Program Agreement (118-9218).

Demonstration Discount: AASP participants may acquire demonstration products at reduced prices for the primary purpose of supporting marketing activities under the terms and conditions of the IBM Business Partner Agreement — Application Specialist (IBPA-AS, Z125-9053). The product shown below is eligible for the specified discount.

Demonstration Program: AASP participants may acquire demonstration products at reduced prices for the primary purpose of supporting marketing activities under the IBM CMAP Agreement. The product shown below is available at the specified discount.

Program Name	Product Number	Demonstration Discount Percent
RISC System/6000 N40	7007-N40	15%

Refer to the *Application Specialists Program Administrative Guide* on HONE for guidelines and further details. Access is ADMINISTRATIVE, BOMANUAL, section 14, subsection 14, Demonstration Discount Program and Internal Quantity Accommodation.

Demonstrations

	Live Product Demonstration	Live Solution/ Integrated Demonstration
At announcement	Yes	Yes
By general availability	Yes	Yes

For additional demonstration information, refer to the NSC DEMOSPRES database available on HONE.

Benchmark Facilities: The announced product will be available for benchmarks at the Establishment Systems Benchmark Center in Dallas, Texas. Area nomination is required. Local IBM offices should contact DALVM41B (BCHMARK).

Promotional Material: INEWS, under the AIX+RS category, will contain references to any promotional material in support of this announcement.

HONE Information

Proposal material will be available through HONE.

The configuration aid, CFRS6000 (fastpath name RISCSYSTEM), will be updated to support this product and will be available March 8, 1994, to customers and remarketers eligible to use IBMLink™.

Installation Information

Installation Support

Installation and technical support are provided by National Technical Support — AIX System Support, in Dallas, Texas.

Field Support: Trading area personnel should contact their trading area specialists for technical marketing assistance. IBM representatives are provided installation and technical support through HONE ASKQ. Questions should be researched in ASKQ using the search word "RISCSYSTEM", with the trading area specialist and in publications before submitting an ASKQ question.

IBM Authorized Agent Firms are provided installation and technical support through IBMLink/ServiceLink. Questions should be researched in Service Information — Search using the search word "RISCSYSTEM", with the trading area specialist and in publications before submitting an Ask Questions — Support question.

Early Support Program: Yes.

Administrative Information

Volume Discounts

The products eligible for volume discounting are also eligible for option to buy. Refer to the Option to Buy description and exhibits in HONE ("Discounts" Section).

Note: The IBM RISC system/6000 N40 Notebook Workstation may not be offered for a discount greater than 10%.

Volume Orders

For information regarding volume orders, contact your IBM representative.

Administrative Action Required

Revised Exhibit for IBM Machines with Graduated or Processor Based Charges: There are no graduated charges for AIX on the N40. The N40 is in Processor Group D5 for any application software with graduated charges.

Maintenance Processing: AAS.

Ordering Information

Orders may be entered into AAS immediately. Schedule dates will be assigned sequentially. Orders involving multiple units are subject to an extension of schedule. No delivery commitments are to be made to customers until confirmed schedules are in AAS.

MES planned availability is April 22, 1994, shipments will begin during the availability month. Schedule dates for MES orders will be based on sequence and parts availability. MES orders received for machines that have not been shipped, will be assigned a scheduled shipment date within 30 days of the machines scheduled shipment date.

Request for Price Quotation

Requests will be accepted immediately and processing will begin in 90 days. Response time and delivery are dependent upon complexity.

Authorized Remarketer

IBM US Remarketer Supplemental Information

March 8, 1994

IBM RISC System/6000 N40 Notebook Workstation

Marketing Information

Marketing Strategy

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Maintenance Service Marketing Program

The announced product is eligible for the Maintenance Service Marketing program. Remarketers participating in this program will receive a fee for successful marketing of the IBM Maintenance Service for this product. Questions related to Maintenance Service Marketing may be referred to IBM Teleservice and Customer Support (TCS) at 800-624-6875, Systems Maintenance, extension 1800.

Installation Support

Field Support: Remarketers should contact their local IBM office and area specialists for technical marketing assistance.

Industry remarketers are provided installation and technical support through IBMLink™/SupportLink. Questions should be researched in SearchInformation — Support using the search word "RISCSYSTEM", with the branch specialist and in publications before submitting an Ask Questions — Support question.

Administrative Information

Industry Remarketer — Mid-Range Ordering Information

Orders should be sent via IBMLink or mailed to the local IBM office.

Orders may be entered immediately. Schedule dates will be assigned sequentially. Orders involving multiple units are subject to an extension of schedule. No delivery commitments should be made to end users until schedule dates are confirmed by IBM.

Request for Price Quotation: Requests will be accepted immediately and processing will begin in 90 days. Response time and delivery are dependent upon complexity.

Terms and Conditions

Certain terms and conditions included in this announcement are intended for direct end users and are not applicable to the remarketer relationship.

Industry Remarketers — Mid-Range: This product is available to IBM Authorized Industry Remarketers who add value under the terms and conditions of the IBM Business Partner Agreement.

Managing Industry Remarketers — Mid-Range: This product is available to Managing Industry Remarketers (MIRs) to be marketed through their approved Industry Remarketer Affiliates who add value under the terms and conditions of the Managing Industry Remarketer Agreement.

Industry Remarketer — Mid-Range Terms and Conditions

IBM Credit Corporation Financing:

IBM Authorized Industry Remarketers — Mid-Range: Financing is available under the IBM Credit Corporation Inventory Financing Program. End-user financing is available through the IBM Credit Corporation Term Lease Financing and installment payment agreements.

Returns Policy: The announced product is eligible for return to IBM as a Category 6 product as stated in the Inventory Adjustment Section of the Industry Remarketer Exhibit (Z125-4096).

Returns because of damage, IBM error and mechanical/policy replacements are handled according to the returns policy as stated in the NDD Marketing Announcement NDD 87-268, dated May 5, 1987.

This announcement is provided for your information only. IBM's products can only be ordered under the terms and conditions of IBM's applicable agreements. For more information, contact your IBM representative.

Price Reduction Credit: The announced product is a Price Reduction Credit Category 5 product and may be eligible for price reduction credits as described in the Price Reduction Credit section of the Industry Remarketer Exhibit (Z125-4096).

This product is automatically available to IBM Authorized Industry Remarketers with Quantities of Eligible Products in Category A and will count toward the Quantity of Eligible Products in this category.

Charges

Purchase prices listed in the **Charges** section of this announcement reflect the purchase price for a single unit acquired from IBM and are subject to change without notice. These prices are for information only and shall not limit, in any way, the remarketer's ability to set prices for these products.

Note: The RISC System/6000 N40 Notebook Workstation has a maximum discount of 15%.

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Hardware
Announcement

IBM United States

March 8, 1994

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Description

The RISC System/6000 N40 is designed for the advanced mobile professional who requires compatibility with their AIX Version 3.2.5 applications and needs portability function not available until now.

User Productivity

The RISC System/6000 N40 Notebook Workstation improves the productivity of mobile professionals whose work travels with them. The RISC System/6000 N40 was designed to fit into a briefcase and can operate using the battery to support users outside a typical office environment. The TrackPoint II™ offers pointing device convenience without the requirement for additional space to operate an external mouse.

System Expandability

The RISC System/6000 N40 is designed with a wide variety of built-in expansion features. These features improve the portability of the system.

PCMCIA: The RISC System/6000 N40 system is designed with a PCMCIA slot that can accommodate two Type I, Type II or one Type III PCMCIA cards. The RISC System/6000 N40 automatically configures without restarting the system when PCMCIA cards are installed.

External Display, Mouse and Keyboard Ports: These ports provide the user with the ability to interact with the system using traditional desktop devices back at the office. The external display port provides the ability to attach a wide variety of external displays to the system. Attachable display sizes include 1280 x 1024, 1152 x 900, 768 x 1024 and 640 x 480. The integrated graphics controller is designed to support resolutions up to 1280 x 1024 on any size display (including the internal display) and provides a pan function that allows the user to view regions of the screen that are larger than a small display would normally support. The mouse port allows the user to add a mouse or mouse compatible pointer and the keyboard port allows the user to attach a full-sized 101-, 102- or 106-key keyboard. The display port can also be used to attach a wide variety of commercially available portable projection panel displays. These displays are especially useful for conferences, meetings and sales presentations.

SCSI-2 Expansion Port: This port provides for the attachment of up to six additional SCSI-2 storage and media devices. An optional portable SCSI-2 diskette drive is available and is powered by the system unit for portable use. Other external SCSI-2 devices can be attached, for example CD-ROM, R/W Optical and a large range of disk drives.

Serial and Parallel Ports: These ports provide interfaces for attaching a variety of devices including portable and non-portable printers. A port is provided to attach printers compatible with Apple printer protocols.

Audio Ports: A full 16-bit audio function has been designed into the system. Two audio ports are provided to complement the built-in microphone and speaker. A 1/8-inch stereo speaker jack is provided for situations where additional amplification is necessary. The other audio port has a fan-out connector with four RCA-type jacks. Two of the jacks are for stereo inputs and two are for stereo outputs.

Ethernet, ISDN and Modem Communications Ports: Integrated into the system are Ethernet, ISDN enabled and 14.4Kb modem ports.** For countries outside the United States and Canada an additional 14.4Kb PCMCIA modem has an appropriate data access arrangement (DAA). These ports allow for the best communications solution for each environment on the road, at home, or back at the office.

** The integrated modem is a V.32 bis data (300-14,400bps)/V.17 FAX (300-14,400bps) modem. It is a full function state-of-the-art, auto-dialing, auto-answering data/FAX modem. It includes error-correction, data compression, data security, and power management functions.

Business Solutions

The RISC System/6000 N40 with a high-speed processor (IBM PowerPC 601/50MHz), large memory (16MB to 64MB), and high-capacity storage (340MB disk drive) offer the mobile professional the capability to run many of the same applications while traveling and at the office.

Enabling New Applications

The RISC System/6000 N40 allows users to take advantage of applications for collection and transmission of data to other systems and LANs, to bring reference material immediately to hand when in the field.

Investment Protection

The RISC System/6000 N40 provides investment protection to the user that has already invested in the RISC System/6000 Family of Products. By providing an extension to this family, the user avoids costly retraining and enables the user's application to become a mobile part of the user's computing requirements.

Standard Features

The base RISC System/6000 N40 comes equipped with the following standard features:

- 50MHz PowerPC 601 processor
- 16MB of 70ns memory (Expandable to 64MB)
- 340MB removable disk drive
- 9.4-inch Color Active Matrix, thin film transistor (TFT) liquid crystal display (LCD)
- 84/85/89-key keyboard with TrackPoint II Pointing Device
- Integrated 14.4Kb modem
- PCMCIA slots (two Type I, two Type II or one Type III cards)
- Ethernet port
- SCSI-2 port
- Port for future IDSN enabling
- Audio ports, internal microphone and speaker
- Parallel port
- Serial port
- Preinstalled AIX for N40 operating system
- IBM RISC System/6000 N40 Notebook Workstation User's Guide
- IBM RISC System/6000 N40 Notebook Workstation Quick Reference Guide
- AC adapter
- Two internal battery packs (10 x AA NiMH 1,100mAh)
- Internal battery pack storage/charger with pass-through cable
- Nylon carrying case for main unit and spare internal battery pack
- AIX for N40 on CD-ROM
- Common Cable Pack

Feature Descriptions

9.4-Inch Active TFT Color Screen: The RISC System/6000 N40 provides the user the capability of easy viewing on the large color screen. With its active matrix TFT display, the user sees crisp bright colors from wide angles of viewing. In a graphical user interface environment, the user can view multiple applications at the same time on a brilliant 9.4-inch high-resolution active matrix color LCD screen with 256-color support. A zoom and pan display function allows the user to maintain an entire 1280 x 1024 image in display memory while viewing a 640 x 480 pixel image on the display. The user can zoom out to display the entire 1280 x 1024 image in a dithered format when views of a larger area are required.

TrackPoint II: The RISC System/6000 N40 provides a unique cursor-pointing device TrackPoint II that is built into the keyboard. It works like a mouse and allows the user to point and select icons on the screen under control of the application. It consists of a device that stands between the "G" and "H" keys, accompanied by three "click-buttons", which are positioned below the space-bar. The device reacts to pressure from the finger-tips and allows the user to keep their hand positioned in place over the keyboard instead of moving to a different location on the desktop.

Internal Keyboards: A full-size 85-key or 86-key keyboard is available with imbedded numeric keypad and integrated TrackPoint II, which emulates all the mouse functions. The TrackPoint II is a pencil eraser sized joystick that sits between the "G" and "H" keys on the keyboard. The mouse buttons are positioned below the spacebar. The internal keyboards are available via factory installation only.

- Keyboard U.S. English (#9010)

Memory

16MB SIMM Memory (Select) (#4027): The N40 may be ordered with two 16MB SIMMS in place of the standard 8MB SIMMS on the initial plant order. Special care should be taken when determining the user memory requirements because the initial plant order fills the two available SIMM memory slots.

32MB SIMM Memory (Select) (#4028): The N40 may be ordered with two 32MB SIMMS in place of the standard 8MB SIMMS on the initial plant order. Special care should be taken when determining the user memory requirements because the initial plant order fills the two available SIMM memory slots.

8MB SIMM Memory 70ns (#4013): SIMMs are 5 V operation, 70 ns, Fast Page Mode operation, and are no more than 1-inch high.

Note: These SIMMS must be installed in pairs.

16MB SIMM Memory 70ns (#4014): SIMMs are 5 V operation, 70 ns, Fast Page Mode operation, and are no more than 1-inch high.

Note: These SIMMS must be installed in pairs.

32MB SIMM Memory 70ns (#4015): SIMMs are 5 V operation, 70 ns, Fast Page Mode operation, and are no more than 1-inch high.

Note: These SIMMS must be installed in pairs.

IBM PCMCIA Memory Card — 4MB FLASH (#7093): This card provides ease of memory storage and extension for portable computer applications. This FLASH memory card uses low power, non-volatile FLASH memory modules that do not require batteries for backup. FLASH cards feature block-erase operations and byte-by-byte write operations. For more information, refer to Hardware Announcement 193-157, dated June 8, 1993.

IBM PCMCIA Memory Card — 2MB SRAM (#7094): This card provides ease of memory storage and extension for portable computer applications. This SRAM memory card uses ultra-low, battery-backed SRAM memory modules that do not require any special programming voltages or algorithms. For more information refer to Hardware Announcement 193-157, dated June 8, 1993.

Adapters

AC Adapter (#7080): This adapter will power the system unit using AC power, and will recharge the Internal Battery Pack (#7090) and also the External Battery Pack (#7091).

IBM Token-Ring 16/4 Credit Card Adapter (#7092): This is a credit-card-sized, token-ring adapter designed to function in machines with PCMCIA Type II slots. The function of a full-size adapter is offered in a package the size of a credit card. This adapter adheres to IEEE 802.5, ECMA 89 and PCMCIA Release 2.0 standards. The adapter functions at either 16MB/second or 4MB/second. A Token-Ring Credit Card Adapter cable, shipped with the adapter, is used to connect to existing token-ring cabling (STP and UTP). A customer-supplied attachment cable is required to attach to the IBM Token-Ring Network. The IBM Token-Ring Network PC Adapter Cable (6339098) and IBM 16/4 Workstation Filter (93F2973) are available from IBM. Refer to Hardware Announcement 192-213, dated September 15, 1992, for more information. The Token-Ring Credit Card Adapter cable is approximately 100 mm long with a 9-pin D-shell female connector on one end and an adapter connector on the other.

Modems

IBM High Speed PCMCIA Data/FAX Modem (#7070): This modem is a V.32bis Data (300-14400bps)/V.17 FAX (300-14400bps), "PC Card" (PCMCIA Release 2.0 Type II) modem. This is a state-of-the-art, full function, auto-dialing, auto answering, data/FAX modem. It is an international modem with error correction, data compression, data security, and power management capabilities. The modem has facilities for cellular phone interface cables and an acoustic coupler. For more information, refer to Hardware Announcement 193-086, dated March 30, 1993.

Data Access Arrangements (DAA): Data Access Arrangements (DAAs) provide connectivity to Public Switch Telephone Networks (PSTNs). For more information, refer to Hardware Announcement 193-086, dated March 30, 1993.

Cables

ASYNC Cable EIA-232/V.24 (#2936): This cable is used to attach serial devices to the standard I/O ports or the 8-Port Assembly. The cable is three meters (9.8 feet) in length.

Printer/Terminal Interposer EIA-232 (#2937): The Printer/Terminal Interposer EIA-232 is used with the Cable EIA-232/V.24 (#2936) to provide the proper wiring for the attachment of IBM terminals, plotters and printers to the 8-Port Async adapter and standard I/O serial ports.

Integrated SCSI-2 Controller Cable (#2833): This cable connects the 50-pin integrated SCSI-2 Controller on a RISC System/6000 system unit planar board to the first external SCSI-2 device (not including the IBM 3510 PS/2® Storage Enclosure device). The cable is 1.48 meters (5 feet) in length. It provides two 50-pin industry-standard connectors on the device end for attachment of SCSI-2 devices having one industry standard SCSI-2 signal port. This feature includes a terminator.

SCSI-2 Single-Ended Controller Cable (#2834): This cable connects the 50-pin integrated SCSI-2 Controller on a RISC System/6000 system unit planar board to the first external SCSI-2 device; it should be used when attaching IBM PS/2 SCSI-2 Storage Enclosure (#3510-0V0) and other devices requiring single-ended attachment. The cable is 1.48 meters (5 feet) in length and provides one 50-pin industry-standard connector on the device end for attachment of single-port SCSI-2 devices. This feature includes a terminator.

PC Parallel Printer Cable (#3100): This cable allows attachment of a RISC System/6000 N40 Notebook Workstation supported printer to the system parallel printer port. The cable is 3 meters (9.8 feet) in length.

SCSI-2 Device-to-Device Cable (#3130): This cable is used if more than one external device is attached. This cable is .66 meter (2.2 feet) in length.

Token-Ring Cable (#4218): This cable attaches the IBM Token-Ring 16/4 Credit Card Adapter (#7092) with standard 100 mm converter to a token-ring network. It is approximately 2 meters long.

SCSI-2 Controller Cable (#2836): This cable connects the 50-pin high-density SCSI-2 Controller (#2410) connector to the first external SCSI-2 device. The cable is 1.57 meters (5.2 feet) in length and provides two 50-pin industry-standard connectors on the device end for attachment of SCSI-2 devices having one or two industry standard SCSI-2 signal ports. Includes a SE (single ended) terminator.

Gt1 High Density 15-Pin-D to 1091 5-BNC Cable (#4228): This cable attaches the N40 system unit to the POWERdisplay 16S.

6091 Attach Cable (#4217): This cable attaches the N40 system unit to the IBM POWERdisplays (except the POWERdisplay 16S), the IBM 5081 and IBM 6091 displays, and many vendor displays (refer to **Supported Devices**). It has five BNC connectors at one end (red, green, blue, horizontal and vertical sync) and a 15-pin D-shell connector at the other end.

Other

3-Button Mouse (#6041): This is a dynamic tracking pointing device that uses opto-mechanical technology. Resolution is 320 DPI. A 2.74 meter (108 inch) attachment cord is included.

The mouse will be available only via MES and will be assigned a shipment date within 30 days of the machines scheduled shipment date.

10Base2 Micro-transceiver (#7087): This transceiver is compatible with Ethernet/IEEE 802.3 transceiver specifications and 10Mbps Ethernet CSMA/CD operation. The transceiver provides a connection to thin Ethernet coaxial cable (10Base2). It connects directly to a 15-pin AUI connector on the back of the main system unit and converts the signal to 10Base2. The medium connection is made through BNC coaxial connector.

10BaseT Micro-transceiver (#7088): This transceiver provides the complete attachment unit interface (AUI) to a twisted pair LAN connection. It connects directly to a 15-pin AUI connector on the back of the main system unit and converts the signal to 10BaseT. The medium connection is made through an RJ-45 receptacle.

Soft Carrying Case for RISC System/6000 N40 and Peripherals (#7089): This is a synthetic material carrying case with two zip-up compartments that provides carrying capacity for main unit, spare internal battery and external battery pack, AC adapter, cables, plus a pouch for manuals and documentation, and a wallet for holding papers. It also includes a detachable shoulder strap. Exterior dimensions are 15 x 12 x 6.5 inches.

Internal Battery Pack (10 x AA NiMH 1,100mAh) (#7090): The Internal Battery Pack is a rechargeable battery pack, made up of 10 AA-sized Nickel Metal Hydride (NiMH) cells, that fits inside the main unit covers (in a compartment under the keyboard). It is also chargeable if fitted into the Internal Battery Pack Storage charger. Energy capacity is approximately 1,100mAh. The battery life under normal operation is approximately 45 minutes.

Internal Battery Pack Storage/Charger (#7097): This element will provide a storage space for an extra Internal Battery Pack and can be used to charge it, when properly connected to the AC adapter.

12 V Car Cigar-lighter Adapter (#7096): This adapter is a power converter that allows the system to be operated from a typical 12 V cigar/cigarette lighter in an automobile. It will allow full system operation, and simultaneously charge the internal battery pack.

External Battery Pack and Cable (10 x D NiCD 5,700mAh) (#7091): This is a rechargeable battery pack that is attached externally to the main unit. It can be connected either by a snap-on connection of the battery pack unit to the rear of the system, or it can be connected via cable, with the battery pack free-standing (not attached). It is made up of 10 D-sized Nickel Cadmium (NiCd) cells and the charger for the battery pack with a capacity of approximately 5,700mAh. The battery life with typical use scenarios is greater than four hours.

Note: The IBM RISC System/6000 N40 External Battery Pack (#7091) has not been approved by the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased until the approval of the FCC has been obtained.

Diskette

External SCSI-2 Diskette Drive with Carry Case (#7086): The external SCSI-2 2.88MB diskette drive is a 3.5-inch, one-inch high diskette drive with up to 2.88MB of formatted capacity when a 3.5-inch, 4MB diskette is installed. In addition, this drive maintains read/write capability with 720KB or 1.44MB diskettes. The diskette drive has stylization consistent with the system.

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Disk

250MB SCSI-2 Removable Disk Drive (2.5-inch) (#2546): This disk drive is a 2.5-inch SCSI-2 disk drive that slides easily into the system through a special panel without opening the system covers. The disk drive features an embedded SCSI-2 interface with a maximum data rate of 9MB/second (synchronous to host). Average seek time is 14ms with latency of 7.9ms. Additional 250MB SCSI-2 Removable Disk Drives may be ordered for additional users of the N40 in environments where the system might be shared. Different users can load different applications on their personal disk drive and install it for their specific needs.

340MB SCSI-2 Removable Disk Drive (2.5-inch) (#2547): This disk drive is a 2.5 inch SCSI-2 disk drive that slides easily into the system through a special panel without opening the system covers. The disk drive features an embedded SCSI-2 interface with a maximum data rate of 9MB/second (synchronous to host). Average seek time is 14ms with latency of 7.9ms. Additional 340MB SCSI-2 Removable Disk Drives may be ordered for additional users of the N40 in environments where the system might be shared. Different users can load different applications on their personal disk drive and install it for their specific needs.

340MB SCSI-2 Removable Disk Drive (Select) (#2545): The 340MB SCSI-2 Removable Disk Drive was substituted for this select feature. The N40 will come standard with a 340MB SCSI-2 Removable Disk Drive on the initial plant order.

A 250MB SCSI-2 Removable Disk Drive (#2546) can only be ordered for the N40 as an additional, optional disk drive.

Software

AIX for N40 (5696-831): The operating system, AIX for N40 will be preinstalled on the RISC System/6000 N40. Refer to Software Announcement 294-114, dated March 8, 1994, for more information.

A backup copy of AIX for N40 on CD-ROM will be shipped with the RISC System/6000 N40 Notebook Workstation.

AIX for N40 CD-ROM Media (#7071): The operating system, AIX for N40, will be preinstalled on the RISC System/6000 N40. Refer to Software Announcement 294-114, dated March 8, 1994, for more information.

A backup copy of AIX for N40 on CD-ROM will be shipped with the RISC System/6000 N40. Feature number 7071 can be ordered for replacement copies of AIX for N40 on CD-ROM.

The CD-ROM containing AIX for N40 software may be updated at times as volumes of service corrections require. These updates are ordered using the same feature number (7071) since they enhance and replace the original CD-ROM.

Users who purchase the Support Line for Mobile Systems software service offerings are provided the CD-ROM as updates are released at no additional charge.

Users who do not choose to purchase the software service offering can get updates to the CD-ROM by purchasing feature number 7071 each time they require an update.

External Keyboards

External keyboards will be available only via MES and will be assigned a shipment date within 30 days of the machines scheduled shipment date.

Keyboard — 101 Keys (#6010): This keyboard supports 101 keys, speaker and double rate typematic default speed for the cursor keys. A detachable 3 meter (9.8 feet) cable is included.

Supported Devices

IBM Displays: The following displays are supported using an industry standard 15-pin D-Shell connection cable.

Display	Type	Resolution	Refresh Hz	Display Cable Feature Number
8508	Mono	1280 x 1024	67	cable provided with display
6091-023	Color	1280 x 1024	60	4217
6091-019	Color	1280 x 1024	60	4217
6091-19i	Color	1280 x 1024	77	4217
POWERdisplay 17	Color	1280 x 1024 1280 x 1024 1024 x 768 1024 x 768	77 60 75 70	4217
POWERdisplay 19	Color	1280 x 1024 1280 x 1024	77 60	4217
6091-016	Color	1280 x 1024 1280 x 1024	77 60	4217
POWERdisplay 16	Color	1280 x 1024 1280 x 1024	77 60	4217
1091-051 (16)	Color	1280 x 1024	72	9020
POWERdisplay 16s	Color	1280 x 1024	72	4228
5081-016	Color	1280 x 1024	60	4217
8517	Color	1024 x 768	70	cable provided with display
6314-014	Color	1024 x 768	70	cable provided with display
6319-015		1024 x 768	60	cable provided with display
6317-017	Color	1280 x 1024 1024 x 768 1024 x 768 1024 x 768	60 75 70 60	cable provided with display
6324 (14-inch)	Color	1024 x 768 1024 x 768 1280 x 1024	60 70 60	cable provided with display
6325 (15-inch)	Color	1024 x 768 1024 x 768 1280 x 1024	60 70 60	cable provided with display

Display	Type	Resolution	Refresh Hz	Display Cable Feature Number
6327 (17-inch)	Color	1024 x 768	60	cable provided with display
		1024 x 768	70	
		1280 x 1024	60	
9524 (14-inch)	Color	1024 x 768	60	cable provided with display
		1024 x 768	70	
		1024 x 768	70.5	
		1280 x 1024	60	
9525 (15-inch)	Color	1024 x 768	60	cable provided with display
		1024 x 768	70	
		1024 x 768	75.8	
		1280 x 1024	60	
9527 (17-inch)	Color	1024 x 768	60	cable provided with display
		1024 x 768	70	
		1024 x 768	75.8	
		1280 x 1024	60	
		1280 x 1024	77	
9521 (21-inch)	Color	1024 x 768	60	cable provided with display
		1024 x 768	70	
		1024 x 768	75.8	
		1280 x 1024	60	
		1280 x 1024	77	

Vendor Displays

Display	Type	Resolution	Refresh Hz	Display Cable Feature Number
Mitsubishi HL6915	Color	1280 x 1024	60	4217
		1024 x 768	70	
		1024 x 768	60	
Nanao 9070U	Color	1024 x 768	60	4217
NEC 4D	Color	1024 x 768	70	4217
		1024 x 768	60	
NEC 5D	Color	1280 x 1024	60	4217
		1024 x 768	70	
		1024 x 768	60	
IDEK MF5117	Color	1024 x 768	60	4217
SONY GDM1953	Color	1280 x 1024	60	4217
SONY GDM1954	Color	1024 x 768	60	4217
SONY GDM1605	Color	1024 x 768	60	4217
SONY GDM1606	Color	1280 x 1024	60	4217
Mitsubishi HL/FL6615	Color	1280 x 1024	60	4217
		1024 x 768	70	
		1024 x 768	60	
NEC 5FG/6FG	Color	1280 x 1024	74	4217
		1024 x 768	75	
Goldstar VGA1465	Color	1024 x 768	60	cable provided with display
Hyundai SVGA	Color	1024 x 768	60	cable provided with display
NEC 3FGx	Color	1024 x 768	60	cable provided with display
Panasonic C1395	Color	1024 x 768	60	cable provided with display

External Storage Devices

- IBM 7203 Model 001 Portable Disk Unit
- IBM 7204 Model 320 External Disk Drive
- IBM 7204 Model 001 1GB External Disk Drive
- IBM 7204 Model 010 1GB External Disk Drive
- IBM 7206 Model 001 2.0GB External 4mm Tape Drive
- IBM 7206 Model 005 4.0GB External 4mm Tape Drive
- IBM 7207 Model 001 150MB ¼-inch Tape Drive
- IBM 7207 Model 011 525MB External ¼-Inch Cartridge Tape Drive
- IBM 7207 Model 012 1.2GB External ¼-Inch Cartridge Tape Drive
- IBM 7208 Model 001 2.3 GB 8mm Tape Drive
- IBM 7208 Model 011 5.0 GB 8mm Tape Drive
- IBM 7209 Model 001 650MB R/W Optical Disk Drive
- IBM 7209 Model 002 1.19GB R/W Optical Disk Drive
- IBM 7210 Model 001 External CD-ROM Drive
- IBM 7210 Model 005 External CD-ROM Drive

Product Positioning

With its world-class lightweight design and powerful feature set, IBM's unique notebook workstation is the ideal portable companion to the RISC System/6000 workstation for users who want to take AIX on the road while staying connected to their networks.

The RISC System/6000 N40 puts the performance and functionality of a workstation in a lightweight and portable package. Designed for the mobile professional, this notebook workstation weighs just 6.9 pounds and operates from an internal battery or an optional battery pack that lets the user work up to four consecutive hours without interruption. With its integrated TrackPoint II pointing device conveniently located in the center of the keyboard, the need for an external mouse is eliminated. Its power comes from the 50MHz PowerPC 601 single-chip processor, 32KB unified instruction and data cache, 16MB to 64MB memory capacity, and the ability to run AIX/6000™ compatible applications.

The RISC System/6000 N40 is also designed to take advantage of the latest in mobile communications, by providing connectivity via a high-speed modem, Ethernet and ISDN devices. In addition, the N40 notebook includes PCMCIA capability for token rings, many other PCMCIA features and future wireless adapters. The RISC System/6000 N40 also offers a built-in speaker and microphone.

Where the need exists to take the power of AIX on the road, users will find the RISC System/6000 N40 Notebook Workstation is the right solution to meet their needs.

Publications

The following publications are shipped with the RISC System/6000 N40. Additional copies are available for a fee. To order, contact your IBM representative.

Title	Feature Number
IBM RISC System/6000 N40 Notebook Workstation User's Guide (U.S. English) and IBM RISC System/6000 N40 Notebook Workstation Quick Reference Guide (U.S. English)	7074

The System Library Subscription Service (SLSS) is not available.

Technical Information

Specified Operating Environment

Physical Specifications (System Unit):

- Width: 290 mm (11.8 inches)
- Depth: 216 mm (8.5 inches)
- Height: 51 mm (2.0 inches)
- Weight: 3.1 kg (6.9 pounds including batteries)

Physical Specifications (Disk Drives):

Physical Size:

- Height: 17 mm (.7 inches)
- Width: 70 mm (2.8 inches)
- Depth: 100 mm (4.1 inches)
- Weight: 180 g (6.3 ounces)

Performance:

- Total bytes: 250MB/340MB
- Number of heads: 3/4
- Number of disks: 2
- Average seek: 14msec
- Data transfer rate: 9.0MB/sec (sync)(peak)
- Average latency: 7.9msec
- Bus interface: SCSI-2
- Data buffer: Read 32KB/Write 32KB

- USA: FCC Class B
- Germany: VDE Class B
- Japan: VCCI-2

Power Supply:

Voltage: 90 to 240 V AC Nominal (autosensing) Auto Ranging, 50/60 Hz

Power Supply: External 60W, system input voltage 12 V

Battery:

- Internal rechargeable pack using 10 AA cells. Battery life exceeds 45 minutes.
- External rechargeable pack using 10 D cells, attachable to the rear the systems, connected by a cable. Battery life exceeds four hours.

Operating Environment:

- Temperature: 5° to 35° C (41° to 95° F)
- Relative Humidity: 8% to 80%
- Noise Level: 5.1 Bels Operating
- Noise Level: 4.8 Bels Idle

Programming Requirements: The operating system, AIX for N40, will be preinstalled on the system. For more information refer to Software Announcement 294-114, dated March 8, 1994.

A backup copy of AIX for N40 on CD-ROM will be shipped with the IBM RISC System/6000 N40 Notebook Workstation. Refer to the **Ordering Information** section for details.

Planning Information

Cable Orders: Cables are shipped with the system.

Shipment Group: RISC System/6000 N40 is shipped with the following components. No additional feature numbers are required on the initial plant order for these base components.

- AC adapter
- Two internal battery packs (10 x AA NiMH 1,100mAh)
- Internal battery pack storage/charger with pass-through cable
- Nylon carrying case for main unit and spare internal battery pack
- Backup copy of AIX for N40 on CD-ROM
- Common Cable Pack
  - Parallel printer cable adapter 0.2 m (Hosiden-30-> PC D-25 female)
  - SCSI-2 cable adapter (0.2 m) (Hosiden-30-> SCSI-2 D female)
  - Audio breakout adapter (0.2 m) (Mini-DIN8-> 4 x RCA phono socket)
  - U.S. telephone line cord (2.0 m) (RJ12 x 2)
  - ISDN line cord (2.0 m) (RJ45 x 2)
  - Serial cable adapter (0.2 m) (Mini-DIN8-> PC D-25 female)
- Country Specific Package
  - Support Line/Warranty Card
  - Power Cord
  - AIX License Agreement
  - IBM RISC System/6000 N40 Notebook Workstation User's Guide
  - IBM RISC System/6000 N40 Notebook Workstation Quick Reference Guide

Power Cords, Modems and Language Groups: For all countries in AP, IBM LA and Canada, power cords, modems and language groups are supplied by the HONE configurator for the country standard power cord/language group/modem based on the country code of the order. The specify codes included in the *Sales Manual* must be used when an alternative to the HONE configurator is required.

Security, Auditability and Control

User management is responsible for evaluation, selection and implementation of security features, administrative procedures and appropriate controls in application systems and communications facilities.

Terms and Conditions

Volume Orders: For information regarding volume orders, contact your IBM representative.

IBM Credit Corporation Financing: Term leases and installment payment plans are available for commercial and state and local government customers.

Customer Fulfillment Option Applies: No.

Warranty Period: System hardware and optional hardware features, one year.

IBM programs, 30 days.

Warranty Service: If warranty service is required, all customers should call IBM Service at 800-CALLAIX (225-5249). This phone number will respond to all service calls for customer support on the hardware for the first year after receipt of the system. Software support, to include how-to and problem resolution, is available for the first 30 days after receipt of the system. For service after the warranties expire, refer to the **Maintenance Service** section.

Should a hardware problem be identified, the Service Center will arrange for overnight shipment to the depot, where repairs or replacement of the failing unit will be made. Most systems will be repaired and put in return mail within 24 hours of receipt at the Center. For systems requiring complex repair or parts replacement, 72-hour repair service is guaranteed. Customers should keep the original shipping carton for shipping to the repair location. If the original shipping carton is not available, the Service Center will make arrangements to provide it.

Warranty Service: IBM Customer Carry-In Repair (CCR).

Maintenance Service: To acquire service beyond the hardware warranty period, users can call 800-CALLAIX (225-5249) to inquire about extended service contracts for their specific needs.

To acquire service beyond the software warranty period, users can order a service contract for a fee by calling 800-CALLAIX (225-5249). This service offering (Support Line for Mobile Systems) is provided by AIX System Support, in Dallas, Texas.

Users who order Support Line for Mobile Systems are provided with phone assistance for operational questions, problem determination and problem resolution for suspected hardware and software problems. Accumulated service corrections for the software would be available on updates of AIX for N40 CD-ROM as volumes of corrections become significant. The updated CD-ROM would be provided at no charge to those who have purchased the Support Line for Mobile Systems software service offering.

For users who do not select the Support Line for Mobile Systems software service offering, mail-in problem report forms will be provided with the system so that the users can report their problems. Service corrections made would be available only on the updates to the AIX for N40 CD-ROM, purchasable by ordering feature number 7071. Updates to the AIX for N40 CD-ROM will be made as volumes of corrections become significant.

Maintenance Service: IBM Customer Carry-In Repair (CCR).

IBM Hourly Service Rate Classification: Not applicable.

Product Availability Status: New product available.

Field Installable Features: Yes.

Model Conversions: No.

Customer Setup: Yes.

Graduated Charges: There are no graduated charges for AIX on the N40. The N40 is in Processor Group D5 for any application software with graduated charges.

Licensed Internal Code: No.

Educational Allowance: An educational allowance is not applicable.

Charges

Product Charges

Description	Machine	Model	Purchase Price
IBM RISC System/6000 N40	7007	N40	$11,995

The following Specifies and Selects for Machine Type 7007 Model N40 can only be ordered with the initial plant order:

Description	Feature Number	Purchase Price
8MB SIMM Memory (Specify)	9214	$ 0
16MB SIMM Memory (Select)	4027	745
32MB SIMM Memory (Select)	4028	2,305
340MB SCSI-2 Removable Disk Drive (Specify)	9213	0
340MB SCSI-2 Removable Disk Drive (Select) (substituted for original feature content)	2545	0
Modem U.S., Integrated	9780	0

The following power cords for the included AC adapter can only be ordered with the initial plant order:

Description	Feature Number	Purchase Price
Power Cord U.S/Canada (#4)	9800	$ 0

The following are internal keyboards for Machine Type 7007 Model N40 and can only be ordered with the initial plant order:

Description	Feature Number	Purchase Price
Keyboard — U.S. English	9010	$ 0

The following language groups for Machine Type 7007 Model N40 and can only be ordered with the initial plant order:

Description	Feature Number	Purchase Price
Language Group — U.S. English	9300	$ 0

The following features can be ordered for plant or field installation:

Description	Feature Number	Purchase Price
250MB SCSI-2 Removable Disk Drive	2546	$1,130
340MB SCSI-2 Removable Disk Drive	2547	1,490
Async Cable EIA-232/V.24	2936	73
Printer/Terminal Interposer EIA-232	2937	29
SCSI-2 Controller Cable	2836	195
Integrated SCSI-2 Controller Cable	2833	195

Description	Feature Number	Purchase Price
SCSI-2 Single-Ended Controller Cable	2834	250
PC Parallel Printer Cable	3100	48
SCSI-2 Device-to-Device Cable	3130	78
8MB SIMM Memory (70ns)	4013	695
16MB SIMM Memory (70ns)	4014	1,440
32MB SIMM Memory (70ns)	4015	3,000
Gt1 High Density 15-Pin-D to 1091 5-BNC Cable	4228	115
6091 Attach Cable	4217	105
Token-Ring Cable	4218	36
3-Button Mouse	6041	135
12 V Car Cigar-lighter Adapter	7096	195
10Base2 Micro-transceiver	7087	195
10BaseT Micro-transceiver	7088	195
Soft Carrying Case for RISC System/6000 N40 and Peripherals	7089	150
Internal Battery Pack (10 x AA NiMH 1,100mAh)	7090	180
IBM Token-Ring 16/4 Credit Card Adapter	7092	700
IBM PCMCIA Memory Card — 4MB FLASH (0932860)	7093	790
IBM PCMCIA Memory Card — 2MB SRAM (0933155)	7094	505
Internal Battery Pack Storage/Charger	7097	205
AC Adapter	7080	200
IBM High Speed PCMCIA Data/FAX Modem	7070	645

External Keyboards Available for a Charge:

Description	Feature Number	Purchase Price
Keyboard — 101-Key (U.S English)	6010	$265